

9 purchasing said plurality of items on-line via a  
10 single check out, wherein an indication of said  
11 plurality of items to be purchased need not be moved,  
12 by said purchaser, between said plurality of vendors.

#### Remarks

Entry of the amendments, reconsideration of the application, as amended, and allowance of all pending claims are hereby requested. Claims 1-50 remain pending.

Claims 10, 18, 30, 38, 47 and 50 have been amended to more particularly point out and distinctly claim applicants' invention. Support for the amendments can be found throughout the specification, and thus, no new matter has been added.

In the Office Action dated January 7, 2000, claims 1-4, 6-7, 22-24, 26-27, and 42-46 are rejected under 35 U.S.C. 102(a) as being anticipated by Rosenberg (WO 98/09447). Claims 18-19 are rejected under 35 U.S.C. 102(a) as being anticipated by Giacoppo. Claims 5, 8, 10, 11-17, 25, 28, 30-37, and 47-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenberg in view of Davis et al. (U.S. Pat. No. 5,796,952). Claims 9 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenberg in view of Susuki (U.S. Pat. No. 5,946,665). Claims 20 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Giacoppo in view of Krick; and claims 21 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Giacoppo in view of Davis et al. Applicants respectfully,

but most strenuously, traverse these rejections for the reasons below.

In accordance with an aspect of the present invention, a cross-domain sharing capability is provided in which state information is shared across non-cooperating domains. That is, the domains have no knowledge of one another and do not directly communicate state information between one another. For example, independent claim 1 recites a method of sharing state information. The method includes, for instance, determining state information to be shared between a first domain and a second domain; and sharing the state information between the first domain and the second domain, wherein the first domain and the second domain are non-cooperating. Thus, in applicants' claimed invention, state information is shared across domains, which are non-cooperating.

This is in sharp contrast to the teachings of the applied reference, Rosenberg. In Rosenberg, state information is shared across cooperating domains, and not across non-cooperating domains, as in applicants' invention. For instance, Rosenberg explicitly states on page 4, lines 30-31: "In particular, the technique of the invention allows all cooperating servers to share information via a database (emphasis added)." Further, on page 7, lines 1-2, Rosenberg explicitly states: "The present invention operates by having a group of related server computers, say server computers 24A-24N, cooperatively observe a common protocol... (emphasis added)." Further, on page 7, lines 7-9, it is stated: "That is, in accordance with the invention, persistent client-side state (cookie) security features are avoided to allow cooperating server computers with distinct

domain names to process state information associated with a browser (emphasis added)." Thus, it is clear from the reference that although the servers have distinct domain names, they are cooperating servers. Thus, the state information is being shared across cooperating domains and not across non-cooperating domains, as explicitly claimed by applicants.

To further explain, in Rosenberg, the servers are cooperating because they need to run additional software that allows the servers to communicate with each other via a common protocol. In contrast, in applicants' invention, no such cooperation is needed, since an intermediary application between the client and the various servers is used to share the state information between the servers. Thus, in applicants' claimed invention, the domains need not be and are not cooperating.

Based on the foregoing, applicants respectfully submit that independent claim 1 is not anticipated by Rosenberg. Further, independent claims 22 and 42 are patentable for the same reasons as independent claim 1. Additionally, the claims dependent from those independent claims are also patentable for the same reasons as their respective independent claim, as well as for their own additional features. Thus, applicants respectfully request an indication of allowability of claims 1-9, 22-29, and 42-46.

In a further aspect of applicants' invention, an intermediary application is used to provide state information to a client and/or a server. This intermediary application is coupled to the client and server, such that

transmissions exchanged between the client and the server go through the intermediary application.

For example, a request being sent from a client application to a server application is received by an intermediary application. The intermediary application upon receiving the request, adds state information to the request, and then, forwards the request with the state information to the server application. Then, as a further example, the server application responds to the request, and that response is received by the intermediary application. The intermediary application then forwards the response on to the client application. Thus, in applicants' invention, the intermediary application acts as a middleman between the clients and servers.

One aspect of applicants' invention is recited in independent claim 10. Claim 10 has been amended herein to further explicitly define intermediary application, and thus, no new issues are presented. Claim 10 recites a method of providing state information. The method includes, for instance, determining state information to be provided to at least one of a client application (hereinafter client) and a server application (hereinafter server); and using an intermediary application, that is disposed to receive transmissions exchanged between the client and the server, to provide the state information to the at least one of the client and the server. Thus, in applicants' claimed invention, an intermediary application is used to provide state information and that intermediary application is disposed to receive transmissions exchanged between the client and the server. This is in sharp contrast to the teachings of Rosenberg and Davis.

In particular, as explicitly stated in the Office Action, Rosenberg fails to disclose sharing of information using an intermediary application. Further, Davis does not overcome the deficiency of Rosenberg. Specifically, Davis describes a method and apparatus for tracking client interaction with a network resource and creating client profiles and a resource database. In order to perform the tracking, a tracking program is used, which is downloaded from a server to the client. That is, "The tracking program is downloaded from a server and runs on the client to monitor various indicia, such as elapsed time, mouse events, keyboard events, and the like...." (Column 4, lines 45-48). In particular, the tracking program tracks user interactions with a file, such as a web page, and provides the information to the server.

However, while the tracking program provides information to the server, the tracking program is not an intermediary application handling communications between a client and a server. That is, the tracking program of Davis is not in the communication path of the server and client, and does not receive transmissions exchanged between client and server programs. This is explicitly shown in Davis, in which it is stated:

As noted above, a client process, such as a Web browser running on the client machine, uses a TCP/IP connection to pass a request to a Web server running an HTTP service (or "daemon" under the UNIX operating system). The HTTP service then responds to the request, typically by sending a Web page formatted in the Hypertext Markup Language, or HTML, to the browser. (Col. 8, lines 53-59)

In the above paragraph, which describes the communications path between a client and a server, there is absolutely no mention of an intermediary application. There is no discussion of an intermediary application that intercepts the transmissions between the client and server before sending the transmissions onto the respective client or server. Thus, applicants' claimed intermediary application is very different from the tracking program of Davis.

Since the tracking program of Davis is not disposed to receive transmissions exchanged between the client and the server, but instead simply monitors the user's interaction (e.g., keyboard presses, mouse clicks) with the client, Davis does not teach or suggest applicants' claimed invention. Further, since Rosenberg fails to describe an intermediary application at all, the combination of Rosenberg and Davis fails to teach or suggest applicants' claimed invention. Based on the foregoing, applicants respectfully submit that independent claim 10, as well as independent claim 30 and 47, are patentable over the combination of Rosenberg and Davis. Additionally, the claims dependent from these independent claims are also patentable over the combination. Therefore, applicants respectfully request an indication of allowability of claims 10-17, 30-37, and 47-49.

A further aspect of applicants' claimed invention is related to a virtual on-line shopping mall. A purchaser selects items from different vendors and those items are added to a single shopping cart, such that the purchaser only has to check out once. However, the purchaser is

relieved from some of the actions that would typically take place in such a purchase. For example, the purchaser need not provide to a vendor the items purchased at another vendor. Instead, this task is taken care of by, for example, an intermediary application. For instance, the intermediary application (e.g., a proxy server) is in charge of placing the selected items in a shopping cart and thus, relieves the purchaser of the burden of explicitly forwarding the list of items to be purchased between the different vendors.

In one example, applicants claim a method of electronic shopping, which includes, for instance, selecting, by a purchaser, a plurality of items to be purchased electronically from a plurality of vendors, wherein the plurality of vendors are represented by a plurality of web sites; and purchasing the plurality of items on-line via a single checkout, wherein an indication of the items to be purchased need not be moved, by said purchaser, between the plurality of vendors. Thus, in applicants' claimed invention, the purchasers are relieved from the task of forwarding a list of the items to be purchased between the vendors. Instead, this task is handled by another entity, such as an intermediary application.

In contrast to applicants' claimed invention, the Giacoppo reference specifically teaches that the shoppers need to take their orders to other checkout stores, if wanting to purchase multiple items from different stores at one checkout. Thus, the shoppers are straddled with the task of providing this list from one vendor to the other. In applicants' claimed invention, the purchaser is relieved of this task, and instead, the intermediary application

moves the list between the vendors. Thus, the reference fails to describe applicants' claimed feature of purchasing the plurality of items on-line via a single checkout, wherein an indication of the plurality of items to be purchased need not be moved, by the purchaser, between the plurality of vendors. Further, there is no teaching or suggestion of how Checkout! (described in the reference) would relieve the shoppers of this task, as claimed by applicants. Thus, applicants respectfully submit that their invention is patentable over the Giacoppo reference, and request an indication of allowability for claims 18-21, 38-41 and 50.

Based on the foregoing, applicants respectfully submit that all pending claims in this application are patentable over the cited references, either alone or in combination. Therefore, applicants respectfully request an indication of allowability of all pending claims.

Should the Examiner wish to discuss this case with applicants' attorney, please contact applicants' attorney at the below listed number.

Respectfully submitted,

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